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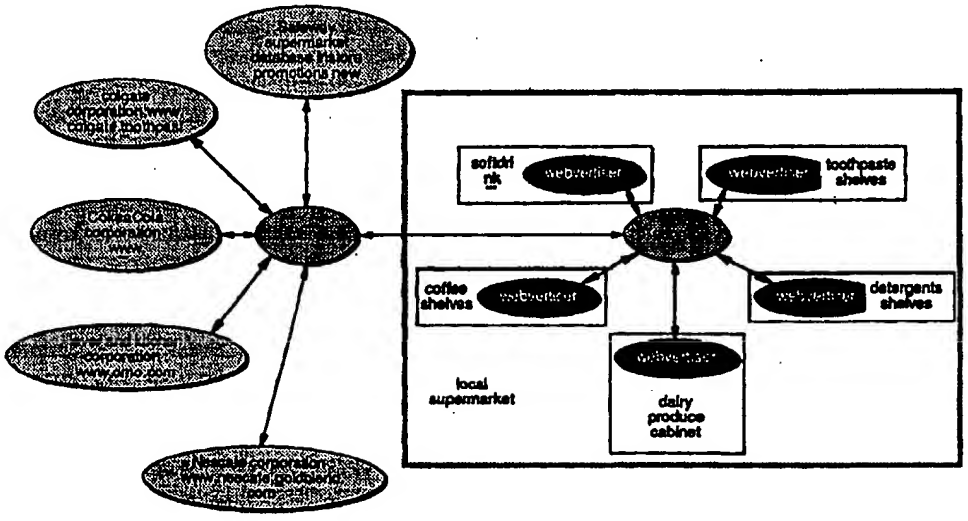
(54) Title: ADVERTISING USING THE INTERNET



(57) Abstract

An advertising system having at least one network computer adapted to be located at a desired public location such as a supermarket, the network computer being adapted to selectively display desired advertising information to the public, with the desired advertising information being at least in part obtained by the network computer from the Internet.

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ADVERTISING USING THE INTERNET

Field of the Invention

The invention relates to advertising using the Internet and refers particularly, though not exclusively, to in-store advertising using computer terminals which obtain at least in part information to be displayed from the internet.

Throughout this specification the use of internet is to be taken as including intranet.

Also, use of "home page" is not to be restricted to a specific HTML page on the internet but is to be taken as including any means whereby a supplier of goods or services can promote those goods or services to another via the internet.

Furthermore, the use of "network computer" is to be taken as including any computer capable of working as part of a network.

Background of the Invention

In-store advertising is increasing in popularity. This is because it can react to the impulsive purchaser at the point of sale, and thereby encourage increased market share at the expense of competitors. Such in-store advertising may cost the product manufacturer or distributor a relatively sizeable sum. The advertising is normally at or adjacent the location of the display of the product, and may be in every store of a chain of stores. Product manufacturers are continually fighting with each other to have their products advertised because a good in-store advertising campaign can significantly increase market share, especially when combined with a promotion such as a 2-for-1 offer, or other promotional campaign.

The main problem for manufacturers is that supermarkets cannot respond with sufficient speed from one campaign to another due to the need of allocation of space, human resources to move products to be displayed or allocate shelf space, printing and distributing the material and guidelines from the head office of the

chain of stores to each of the stores, and so forth. Therefore, there is a significant delay in an in-store promotion being implemented. This may result in there being a considerable backlog of products to be advertised in-store, and there may also be insufficient stores which have that advertising.

Furthermore, many manufacturers and/or distributors of products have home pages on the internet which provide information regarding their products, the product range of the company, the advantages of those products over the competitors, special promotional offers, and the like. This information is only available to those enthusiasts who use the internet and find that home page, and go into the home page and find the information. Therefore, that information, although useful to the community, is not widespread nor available to the general purchasing public.

Objects of the Invention

It is therefore the principal object of the present invention to provide advertising using the internet and particularly, but not exclusively, to advertising on in-store located network computers located in a public environment and where the network computer uses information to promote products and/or marketing campaigns and/or promotional campaigns, the information being obtained from the internet.

Another object is to enable the information from the internet to be combined with other information so as to better present the products.

A further object is provide interactive network computers, which may have proximity sensors.

Brief Statement of the Invention

With the above and other objects in mind the invention provides an advertising system having at least one network computer adapted to be located at a desired public location, the network computer being adapted to selectively display desired advertising information to the public, with the desired advertising information being

at least in part obtained by the network computer from the internet.

Preferably, there is more than one network computer inter-connected to form a network, the network being connected to the internet via a network server.

Preferably each network computer has a proximity sensor to enable each of the network computers to be only active when there are people in the proximity. Advantageously, the proximity sensors can also be used to monitor the number of people passing the network computer.

Advantageously the network computers each include a screen which may be a flat screen or a normal screen. More advantageously, the screen is a touch-sensitive screen to enable interactive operation of the network computer and the desired advertising information with customers.

If required, some of the desired advertising information may be obtained from the network server. Advantageously, the network is a local area network (LAN), and is preferably a radio frequency local area network.

If desired, the network computers can be programmed to shut-down at a predetermined time such as store closing time, and to switch on again at a different time, such as store opening time. Furthermore, the network computers may be able to display different desired advertising information at certain times of the day.

The network computers may be diskless computers that download all software, except for basic network connectivity and simple operating systems, from the central server. However, the network computer may have a disk or other data storage device to enable a multi-media presentation.

Advantageously, the advertising system may have built therein emergency signals for pre-programmed emergency conditions such as, for example, fire, holdup, power failure, or other similar crisis event. In such an event, the central server may selectively provide information to their network computers so that the information

displayed will be of assistance to customers in the store in that particular emergency. That information may include arrows indicating the nearest exit, or other instructions to the customers of the store.

Description of the Drawings

In order that the invention may be properly understood, there shall now be described a preferred embodiment of an advertising system incorporating the principal features of the present invention, the description being referenced to the accompanying illustrative drawings in which:

Figure 1 is a graphic illustration of a network computer;

Figure 2 is a graphic illustration of a network computer interconnected via the internet to 3 different corporations; and

Figure 3 is a graphic illustration of an advertising system for use in a department store or supermarket.

Description of preferred embodiment

To firstly refer to Figure 1 there is a schematic illustration of what is involved with a network computer. The network computer will preferably have a display screen, processing box and the required cards, all in one housing. The display screen should be available in a variety of sizes with the screen being as large as possible to fit within the housing. The display screen may be touch-sensitive to enable interactive application of the desired advertising information by a customer or customers. The processing box would include all necessary memory and processing equipment. Preferably, the memory should be at least 32 Mb, with or without a motion sensor, and with or without a network card. A motion or proximity sensor is preferably used in conjunction with the network computer so that the network computer is only operating when a customer or potential viewer/listener is within the appropriate distance. Alternatively, the network computer could be reset to recommence its message when a person is in range of the proximity sensor.

Preferably, the housing is relatively robust, is preferably waterproof and able to be easily cleaned. The power source may be the normal electricity mains, and/or a battery system. It may be able to be located on a stand, trolley, or, more preferably, within the shelving system of a store or supermarket. It preferably includes loudspeakers so that multi-media advertising information can be used.

The network computer may be as part of a local area network which may be inter-connected by cabling or, preferably, by use of radio frequency. It is preferably a diskless computer that downloads all software, except for basic network connectivity and simple operating systems, from a central server. It may have a disk drive, which may be a hard disk or other storage device, to enable selective information to be downloaded onto the network computer. It will of necessity require the appropriate computer boards and, where a central server is not required, may have a built-in modem to enable direct connection to the internet. It may also be interactive with a video camera so that images of the store, a particular product, or the customer may be included as part of the desired advertising information.

To now refer to Figure 2, there is described a basic advertising system. Here there is shown a network computer, very much as in accordance with Figure 1, which is connected to the internet. Three different corporations are also connected to the internet. Each of those corporations will have a home page. Within the home page is information regarding the corporation, its product range, marketing and advertising schemes, specific product promotions, and information regarding the various products of the company. All of that information is available via the internet. The network computer, as is described above, via an in-built or separate modem, will access the internet and proceed directly to the relevant home page of the relevant company. From that home page it will gain access to the information relating to the particular product to be the subject of the advertising. That information will then be stored in the memory of the network computer and will be displayed on its screen so that the information regarding the product will be visible, and any audio message able to be heard, by customers in the vicinity. Preferably, the network computer is placed in the shelves of the store at the

location of, or adjacent to, the display of the product concerned. Therefore, if corporation one is providing a special promotion and information regarding, for example, a particular style of instant coffee, the network computer would be located in the shelves of the supermarket where instant coffee is sold. Therefore, the customers in the supermarket will be able to see and hear information regarding that instant coffee, and the special promotion in relation to that instant coffee. This information can clearly be changed very easily and quickly to thus provide fast turnaround within the supermarket.

If desired, extra information can be down-loaded from the internet such that the information is not merely a static display of a single screen, but may be a short sequence of pictures or other images, in a moving sequence which may be at the requisite speed to provide a mini-movie of the relevant product. This may be downloaded from the internet from the home page, or may be able to be added to the network computer by use of separate programming which could be via any suitable storage device, including a floppy disk, CD-ROM, or other means.

Naturally, with three corporations involved, each may have a range of products and it may be possible for the network computer to promote company one's product for a particular time, the move to corporation number two, promote its products for a further time, and then promote products of corporation number three. A mixture of varying products from the one corporation, or different products of the different corporations, could be arranged depending on the programming and the requirements of the store and (or the companies concerned) at the particular time.

With reference to Figure 3, there is shown the system which would generally apply in larger stores such as supermarkets, department stores, or the like. Here, there are a number of network computers all connected to a network server. The network server is the connection to the internet and thus all information downloaded to the network computers is processed via the server. As the server is normally a more powerful machine, this enables information to be included with the server and to be included in the information downloaded to the network computers. In this way, for example, information can be combined from a

particular supplier with information about the products of that supplier being merged with information from the supermarket chain, in the instance of a joint promotion. This could be done via the control at the internet end at either the company's headquarters or the supermarket chain headquarters so that when the information is downloaded, the server will be able to extract the relevant information from one, add it to the other, and pass it through to the network computer. Furthermore, the network computer can receive information inputted to the server so that in the event of there being a special promotion for a particular store (as in a recently opened store) it can be programmed into the server and passed through to the various network computers.

Preferably, the connection from the server to the network computers is via a local area network, which may be via cable linkings or by radio frequency linkings. In such an instance each network computer will require a network card to communicate with the server. However, the speed and flexibility of having a server within the store is of advantage. This would require each network computer to have some identifying code, be it a name or number, so that it can be uniquely identified by the server. In this way the information provided by the server to a network computer will be relevant for that particular network computer.

By use of a local area network, a retailer is able to quickly and relatively inexpensively create their own advertising or promotions, which can then be displayed in-store by altering the programming of the server. This can also be passed through to the national or international headquarters via the internet. This enables new advertising and promotion to be on a regional or local basis, without the large logistical planning that is required with present methods. Present methods require printing, staff movements, and so forth. Furthermore, by using a server of appropriate power, the information from the internet will be able to be downloaded to the server and passed through the network computers with great speed. The server must be aware of all of the network computers connected to it and can remotely control the necessary aspects of each network computers functionality. This would include being able to change the desired advertising information being displayed by a particular network computer, or the timing or the

extent of that information. In this way, it is quite simple to change the network computers remotely, thus reducing the cost of the system.

Furthermore, the server may itself become a home page or appropriate site on the internet so that it can act to personalise the content of the information being displayed by the various network computers. For a large chain of stores, the servers themselves may be formed into a wide area network so as to be able to control a number of stores in a geographic region from a central headquarter's office. Within a store it may be possible for the various network computers, via the server, or directly, to be operatively connected to a printer. If there are a large number of network computers in a particular store, there may be, for example, a printer to serve a combination of aisles, a single aisle, or a region of the store; or there may be one central printroom from which people can obtain the relevant printouts. These printouts would be information regarding the various products, the store, the various promotions on offer, forthcoming specials, special events at the store, or any combination thereof, or other relevant matter.

In the event of an emergency, any network computer, or the central server, can be used to place all of the other network computers into an emergency mode. In this mode all of the network computers may flash or display an appropriate message so that customers in the store will be informed of what is happening, and what is required of them. If the emergency is fire, the message may be, for example, the word "exit" and an appropriate arrow pointing to the nearest exit, and advice as to what to do - such as to stay low to avoid the smoke. In the event of a hold up, it could be a message that there is an armed robbery in progress and all customers should stay where they are, keep low, and remain calm. Further messages would be of a relevant nature could be provided for emergencies such a power failure, floods, or other suitable occurrences.

Furthermore, the network computer may be able to be interactive so that it can provide necessary store location information. For example, if the network computer was in the instant coffee section providing information relating to a particular brand of coffee, a customer may be able to obtain information from the network computer as to the location of pre-prepared beverages including coffee

made by that particular company under that brand. As for example, coffee flavoured milk may be in a different area of the store, the customer can be directed to that area. If dealing with unground coffee beans, the information may be a further chart providing information as to the grinding settings required for expresso machines, plungers, coffee filters, or percolators.

Each network computer may be suitably programmed so that in the event of there being a lack of customer traffic, they will shut down and remain in standby mode pending a customer or group of customers coming close to the network computer. In this way the screen is saved, and energy consumption is reduced. The proximity sensor can be used to not only achieve that end, but also to monitor the number of people passing the particular network computer over a period of time. This may be able to be used to determine the relevant costing. If there is a very heavy trafficked area, the cost of using the particular network computer will be higher than for a lower trafficked area. It may also be relevant for determining the effectiveness of the message. Advertisers may be able to determine that by having their message in the particular area when the traffic was high, the percentage of passers-by who purchase the product being advertised is correspondingly high.

The nature of the message being advertised can vary according to the traffic in the region. If it is quite busy then the message may be short, and a customer will be referred to the interactive screen to obtain further information. At times of low traffic, the message may be longer and more information provided as with lower traffic, customers may have more time to spend receiving the message.

Furthermore, a network computer may be programmed that at various times of the day the nature of the information being displayed can change. In the alternative, it may be programmed to maintain a message for only a predetermined time and after that time to change to a different message.

Whilst there has been described in the foregoing description a preferred embodiment of the present invention, it should be understood by those skilled in the technology concerned that many variations or modifications and details of the

design or construction or operation of the system may be made without departing from the essential features of the present invention.

It will be understood that the invention disclosed and defined herein extends to all alternative combinations of two or more of the individual features mentioned or evident from the text or drawings. All of these different combinations constitute various alternative aspects of the invention.

It will also be understood that where the term "comprises" or its grammatical variants, is employed herein, it is equivalent to the term "includes" and is not to be taken as excluding the presence of other elements or features.

CLAIMS:

1. An advertising system having at least one network computer adapted to be located at a desired public location, the network computer being adapted to selectively display desired advertising information to the public, with the desired advertising information being at least in part obtained by the network computer from the Internet.

2. A system as claimed in claim 1, wherein there is more than one network computer inter-connected to form a network, the network being connected to the Internet via a network server, the network server being the only connection to the Internet.

3. A system as claimed in claim 2, wherein the network server downloads the desired advertising information from a web site of at least one advertiser.

4. A system as claimed in any one of claims 1 to 3, wherein each network computer has a proximity sensor to enable each of the network computers to be only active when there are people in the proximity.

5. A system as claimed in claim 4, wherein the proximity sensors are also used to monitor the number of people passing the network computer.

6. A system as claimed in any one of claims 2 to 5, wherein the network computers each include a screen which may be a flat screen or a normal screen, the screen being a touch-sensitive screen to enable interactive operation of the network computer and the desired advertising information with customers.

7. A system as claimed in any one of claims 2 to 6, wherein the desired advertising information for a particular network computer is transmitted from the network server to the particular network computer.

8. A system as claimed in any one of claims 2 to 7, wherein the network is a

local area network.

9. A system as claimed in claim 8, wherein the network is a radio frequency local area network.

10. A system as claimed in anyone of claims 2 to 9, wherein the network computers are programmed to shut-down at a predetermined time and to switch on again at a different time.

11. A system as claimed in any one of claims 2 to 10, wherein the network computers display different desired advertising information at different times of the day.

12. A system as claimed in any one of claims 2 to 11, wherein the network computers are diskless computers that download all software, except for basic network connectivity and simple operating systems, from the central server.

13. A system as claimed in any one of claims 2 to 11, wherein the network computers have a disk or other data storage device to enable a multi-media presentation.

14. A system as claimed in any one of claims 1 to 13, wherein the advertising system has built therein emergency signals for pre-programmed emergency conditions such as fire, holdup, power failure, or other similar crisis event to enable the central server to selectively provide information to their network computers so that the information displayed will be of assistance to customers in the store in that particular emergency.

15. A system as claimed in claim 14, wherein the information includes arrows indicating the nearest exit, or other instructions to the customers of the store.

16. A system as claimed in claim 10, wherein the predetermined time is store

closing time.

17. A system as claimed in claim 10 or 11, wherein the different time is store opening time.

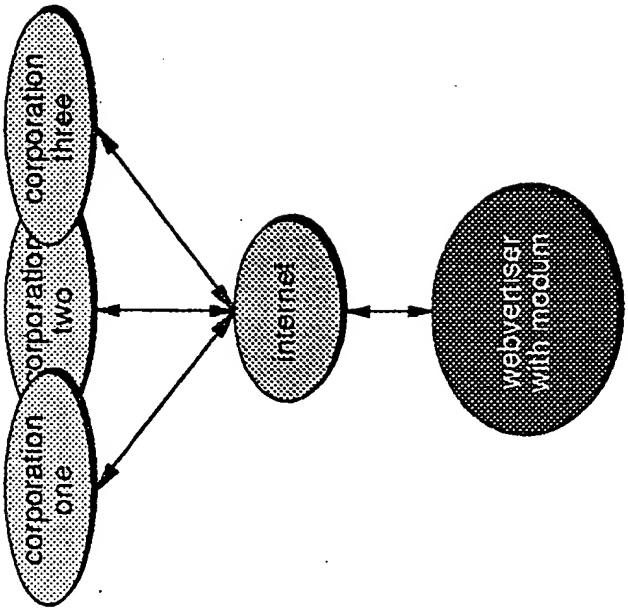


Figure 2

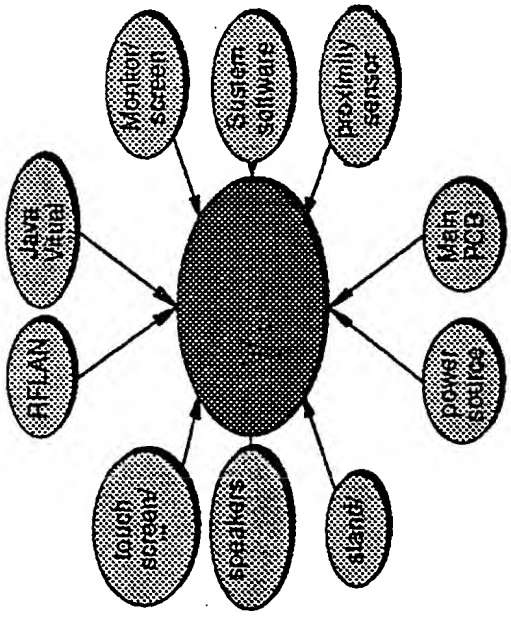
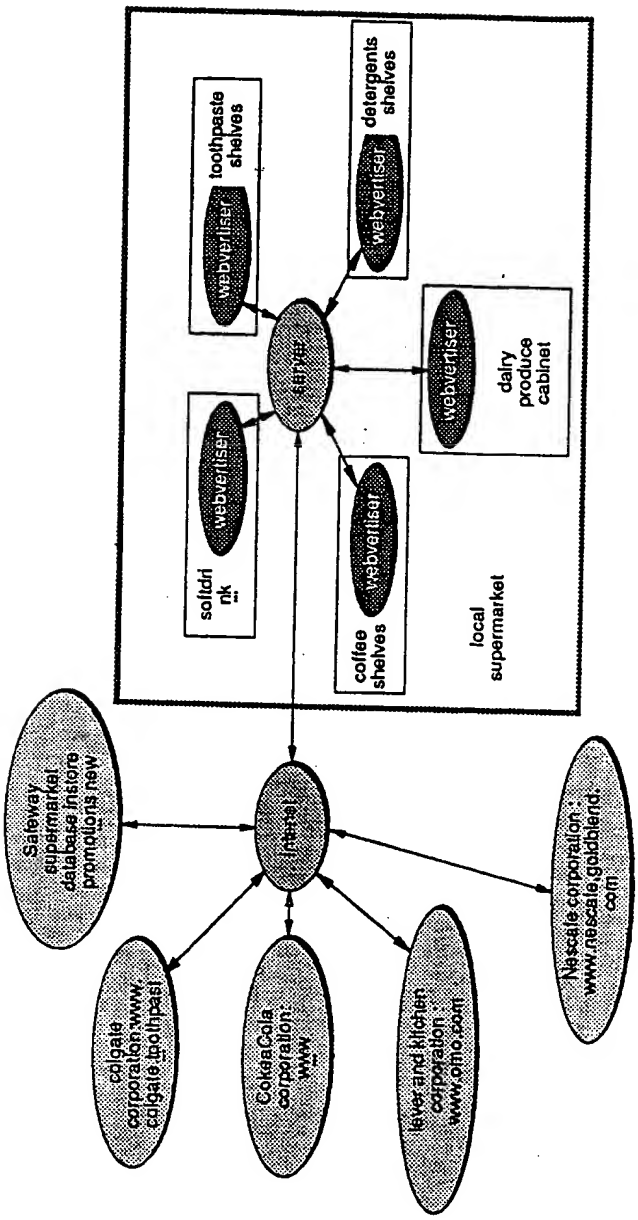


Figure 1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Intranet
colgate corporation www. colgate toothpast
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lever and kitchen corporation www.omo.com
Nescafe corporation www.nescafe.goldblend. com
local supermarket
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softdri nk ...
webveriliser
server
webveriliser
dairy produce cabinet
webveriliser
detergents shelves
webveriliser
toothpaste shelves

Figure 3

INTERNATIONAL SEARCH REPORT

International Application No.
PCT/AU 98/00529

A. CLASSIFICATION OF SUBJECT MATTER

Int Cl[6]: G06F 17/60

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
AU IPC G06F 17/60

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
WPAT: G06F AND "advertis:"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X Y	EP-A2-0816997 (SUN MICROSYSTEMS, INC.) 7 January 1998 See claims 12 and 16.	1-3, 6, 8, 13 4
P, X Y	WO-A1-97/41546 (Dahlgren et al) 6 November 1997 See pages 4 to 7, page 9 line 19 et seq, page 15 lines 20 et seq, page 27 lines 3-4.	1-3, 7, 8, 11, 13 4
P, Y	DE-C1-19647341 (Lausch) 30 April 1998 See abstract.	4

[X] Further documents are listed in the continuation of Box C

[X] See patent family annex

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"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
31 July 1998	11 AUG 1998
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200 WODEN ACT 2606 AUSTRALIA Facsimile No.: (02) 6285 3929	Authorized officer MICHAEL HARDY Telephone No.: (02) 6283 2547

INTERNATIONAL SEARCH REPORT

International Application No.
PCT/AU 98/00529

C (Continuation) **DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO-A1-96/05564 (Balabon) 22 February 1996	
A	US-A-5305195 (Murphy) 19 April 1994	

INTERNATIONAL SEARCH REPORT
Information on patent family members

International Application No.
PCT/AU 98/00529

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member					
EP	816997	JP	10161616				
WO	9741546	AU	27199/97	SE	9601603		
DE	19647341	WO	9822901				
US	5305195	AU	39372/93	EP	638186	MX	9301687
		WO	9319427				

END OF ANNEX